

**AMENDMENTS TO THE CLAIMS:**

The listing of claims will replace all prior versions, and listings of claims in the application:

**LISTING OF CLAIMS:**

1. (Cancel)
2. (Cancel)
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8. (Cancel)
9. (Previously presented) A system for producing an actuator response, the system comprising

a plurality of rows of actuators capable of producing an actuator response in reply to a control signal;

a resistive strip connected to the plurality of rows of actuators; and

N electrodes, where N is an integer greater than one, having a voltage  $V_1, \dots, V_N$ , each electrode being connected to the resistive strip to transmit the control signal to the rows of actuators to thereby cause the rows of actuators to produce the actuator

response, wherein a particular one of the N electrodes is allowed to float, thereby increasing a correlation region.

10. (Currently amended) The system of claim 9, such that the distance between any two adjacent electrodes is substantially equal to a correlation length of the plurality of rows of actuators.

11. (Original) The system of claim 9, wherein  $(V_j + V_{j+1})/2$ , for each  $j$  satisfying  $1 \leq j \leq N-1$ , is chosen to approximate a desired actuation profile.

12. (Original) The system of claim 11, wherein  $(V_j + V_{j+1})/2$  is chosen to substantially equal an average value of the desired actuation profile over a position substantially equal to a location of the portion of the resistive strip between the  $j$ th and  $j$ th + 1 electrodes.

13. (Original) The system of claim 9, wherein  $(V_j - V_{j+1})$ , for each  $j$  satisfying  $1 \leq j \leq N-1$ , is chosen to approximate a desired actuation profile voltage.

14. (Original) The system of claim 13, wherein  $(V_j - V_{j+1})$  is chosen to substantially equal an average slope of the desired actuation profile over a position substantially equal to a location of the portion of the resistive strip between the  $j$ th and  $j$ th + 1 electrodes.

15. (Original) The system of claim 9, wherein each of the plurality of rows of actuators can produce two discrete actuator responses.

16. (Canceled)

17. (Previously presented) A system for producing an actuator response, the system comprising

a resistive sheet;

an array of actuators electrically connected to said resistive sheets via contacts; and

a plurality of electrodes for fixing voltages on the resistive sheet, wherein by varying the voltages a desired actuation profile can be produced by the array of actuators to produce the actuator response; and

a capacitive layer coupled to the resistive sheet to allow a correlation region to depend on time.

18. (Original) The system of claim 17, wherein the plurality of electrodes includes at least four electrodes for fixing voltages,  $V_1, \dots, V_4$  on the resistive sheet, wherein by varying the voltages  $V_1, \dots, V_4$  a desired actuation profile can be produced by the array of actuators to produce the actuator response.

19. (Original) The system of claim 18, wherein, if the four voltages lie substantially at points (0,0), (1,0), (0,1) and (1,1) of a Cartesian coordinate system, the desired actuation profile, expressed as voltage  $V(x,y)$  as a function of position within a square having corners at said points, is given substantially by

$$V(x,y) = V_3(1-x)(1-y) + V_1(1-x)y + V_4x(1-y) + V_2xy.$$

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)